

## PATENT ABSTRACTS OF JAPAN

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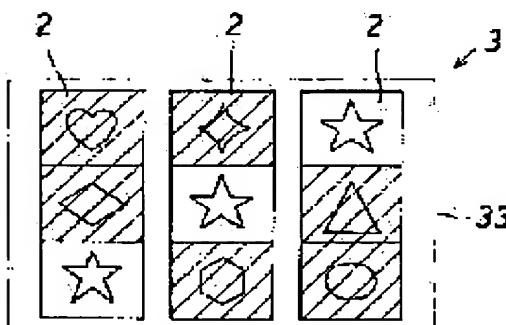
(21)Application number : 11-118554 (71)Applicant : BENKEI KIKAKU KK

(22)Date of filing : 26.04.1999 (72)Inventor : NISHIKAWA TADAO

## (54) SLOT MACHINE

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To considerably improve enjoyment of a game by enabling a player to easily discriminate relevant patterns in the event of winning a prize in a slot machine installed in a pachinko game place or the like.



**SOLUTION:** A display part 3 of this slot machine displays a plurality of patterns aligned longitudinally and laterally. The display part 3 is provided with a liquid crystal panel 33, and each pattern can be seen through the liquid crystal panel 33. In the event of winning a prize, areas opposed to the patterns that form the prize winning patterns are left transparent, and areas opposed to the other patterns are colored to be translucent or opaque. The patterns unrelated to the prize winning patterns are therefore put in the obscure or invisible state to clearly indicate only the patterns related to the prize winning patterns.

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**Bibliography**

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**Epitome**

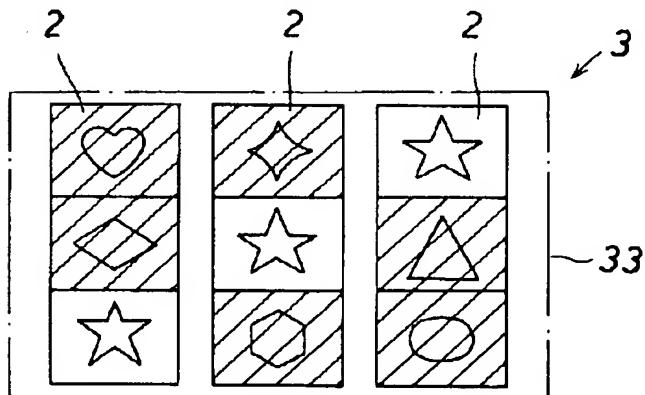
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**(57) [Abstract]**

[Objects of the Invention] In the slot machine installed in a pachinko amusement center etc., as a game person can distinguish easily the pattern which corresponds at the time of winning a prize, the enjoyment of a game is raised sharply.

[Elements of the Invention] This display 3 is equipped with a liquid crystal panel 33, and it enables it to see through each pattern through that liquid crystal panel 33 in the display of the slot machine in which two or more patterns align in all directions at, and are shown. And at the time of winning a prize, it leaves the pattern in which the winning-a-prize pattern was formed, and the field which counters with transparency, it paints to the field where other patterns counter, and is made translucent or opaque. Thereby, it changes into an invisible condition and only indistinct or the pattern related to a winning-a-prize pattern is specified for a pattern unrelated to a winning-a-prize pattern.

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**CLAIMS**

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**[Claim(s)]**

**[Claim 1]** The slot machine characterized by providing the following The display with which two or more patterns align in all directions, and are indicated to be A discernment means by which have a control unit for changing each of that pattern, leave the pattern which formed the winning-a-prize pattern in said display, and the field which counters in the slot machine which supplied the regular right to the game person with transparency when the pattern shown in said display forms a predetermined winning-a-prize pattern, and other patterns and the field which counters are temporarily made translucent or opaque

**[Claim 2]** The slot machine characterized by providing the following The display with which two or more patterns align in all directions, and are indicated to be A discernment means distinguish from the field where it has a control unit for changing each of that pattern, and it paints to this pattern and the field which counters, changing into a visible condition the pattern which formed the winning-a-prize pattern in said display in the slot machine which supplied the regular right to the game person when the pattern shown in said display forms a predetermined winning-a-prize pattern, and other patterns counter

**[Claim 3]** Claim 1 to which a discernment means changes from a liquid crystal panel, or the slot machine indicated to 2.

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## DETAILED DESCRIPTION

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### [Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the slot machine which determines whether to be winning a prize from enumeration of the pattern shown in a display.

[0002]

[Description of the Prior Art] Conventionally, a slot machine is well known as a game machine with which a pattern is doubled. The kind of slot machine makes 3 juxtaposition the drum of the shape of a ring which gave how many kinds of those patterns to the peripheral surface at equal intervals, contains it in a machine frame, and enables it to have checked some of the patterns of each of that drum by looking from the outside through the display slack fluoroscopy aperture generally. The display carries out opening of the front face of a machine frame partially for example, corresponding to each drum, closes the opening by transparent materials, such as a glass plate, and changes, and as usually, for every drum, every three a total of nine patterns align in all directions, and are shown here. A slot machine performs a game here using a predetermined medal, and when enumeration of the pattern updated by the control unit for changing the input port which throws in the medal for it, and the pattern shown in a display after an injection of a medal to a machine frame, and actuation of this control unit forms a predetermined winning-a-prize pattern, the hopper in which return opening for returning the medal of a predetermined number and the medal for return are stored is formed. In addition, although a control unit consists of a slot lever for rotating each drums all at once, and a stop button which can stop the drum under rotation according to an individual, there is also a thing of form which makes each drum stop automatically, without having a stop button.

[0003] And if according to the slot machine constituted as mentioned above enumeration of the pattern shown in a display forms a predetermined winning-a-prize pattern when a control unit is operated, a game is performed after an injection of the medal to input port and all the drums stop, a game person can acquire rights. For example, when the predetermined pattern in a top drum is shown in a display, a medal is returned two sheets. When the pattern of the same kind in a \*\*\*\* drum arranges on a straight line, the medal of 6-15 sheets is returned by the classification of this pattern. When "7" arranges on a straight line as a pattern of the same kind especially, the right that the probability which forms a winning-a-prize pattern in subsequent games with return of the medal of a predetermined number is raised will be acquired.

[0004] Generally the number of injections of the medal per time makes three sheets an upper limit. At the time of an one-sheet injection in addition, the horizontal single tier of the middle At the time of a two-sheet injection, the horizontal single tier of one of each stages with moreover, the supply of a right [ as opposed to / when the

train which added the direction of slant is made into winning-a-prize decision Rhine, respectively at the time of a three sheet injection and a winning-a-prize pattern is formed on the Rhine / like / \*\*\*\* / a game person ] The lamp formed near the display is made to turn on and it enables it to have told winning a prize to the game person.

[0005]

[Problem(s) to be Solved by the Invention] However, the enjoyment of a game will be lacked that it is difficult only for what formed the lamp which tells winning a prize near the display like before for winning-a-prize Rhine to express whether a prize was won in which Rhine when winning-a-prize Rhine was complicated, in order to attain diversification of a game better at the cases of being comparatively simple, such as linear, and the distinction cannot be easily attached as for a game person.

[0006] It is in raising the enjoyment of a game sharply, as this invention is accomplished in view of the above situations and, as for the place made into the purpose, a game person can distinguish easily the pattern which corresponds at the time of winning a prize.

[0007]

[Means for Solving the Problem] The display with which two or more patterns align in all directions, and are indicated to be in order that this invention may attain the above-mentioned purpose, In the slot machine which supplied the regular right to the game person when the pattern which has a control unit for changing each of that pattern, and was shown in said display formed a predetermined winning-a-prize pattern It leaves the pattern which formed the winning-a-prize pattern in said display, and the field which counters with transparency, and the slot machine characterized by having a discernment means by which other patterns and the field which counters are temporarily made translucent or opaque is offered.

[0008] Moreover, the display with which two or more patterns align in all directions as other modes, and this invention is indicated to be, In the slot machine which supplied the regular right to the game person when the pattern which has a control unit for changing each of that pattern, and was shown in said display formed a predetermined winning-a-prize pattern It paints to this pattern and the field which counters, changing into a visible condition the pattern which formed the winning-a-prize pattern in said display, and the slot machine characterized by having a discernment means to distinguish from the field where other patterns counter is offered.

[0009] Although the shield whose closing motion according to an individual is enabled can also be formed on the display position of each pattern as a discernment means here, it is desirable to constitute a discernment means from a liquid crystal panel preferably.

[0010]

[Embodiment of the Invention] Hereafter, the example of application of this invention is explained to a detail based on a drawing. First, drawing 1 is the front view having

shown an example of a slot machine. In drawing 1 , it is the machine frame with which 1 accomplishes sheathing of a slot machine, and the pivotable drum which made 2 the interior of a machine frame at the letter of 3 juxtaposition, and was prepared, and two or more patterns of a class are given to the peripheral surface of each of that drum 2 at equal intervals in the hoop direction, respectively. 3 is the display which can see through the pattern of each drum, and for every drum, every three a total of nine patterns align in all directions, and it is shown in this display 3. 4 is a control unit for changing the pattern which appeared in the display, and this control unit 4 consists of a slot lever 5 for rotating each drums 2 all at once, and a stop button 6 for stopping each drum 2 according to an individual. It is input port of the guidance LGT for specifying the starting LGT which prepared 7 in the bottom of a display corresponding to each drum, and winning-a-prize Rhine confirmed by 8, and a medal required for 9 to perform a game, among these starting LGT 7 is turned on during rotation of a drum 2, and at the time of winning a prize, only the thing on corresponding Rhine blinks guidance LGT 8 while switching on the light in order according to the number of injections of a medal. Moreover, return opening for 10 to pay out the medal of a predetermined number at the time of winning a prize, the saucer which receives the medal which 11 paid out, and 12 are drops which display the volume of payment of a medal. Here, the medal used for a game can be stored not only in supplying from input port each time but in an internal memory to 50 sheets as data. The injection carbon button used when the indicator with which 13 shows the reservoir quantity, and 14 use this medal, and 15 are the liquidation carbon buttons for taking out the actual thing of this medal. In addition, the return carbon button used when the medal which supplied 16 to input port is got blocked, and 17 show the ash pan.

[0011] Next, drawing 2 shows the example of a configuration of the control circuit in this application slot machine. In drawing 2 , control-block A begins CPU18 as a central processing unit, the executive program of a game is written in ROM19, including ROM19 and RAM20, and the data needed for games, such as reservoir medal quantity, are written in RAM20 each time.

[0012] On the other hand, a drum 2 is linked for control-block B to the drum 2 as a controlled system, the slot lever 5 as a control unit 4 and a stop button 6, and a list with CPU18 through the control section 21 and position transducer 22 of the motor for a drive, including input port 9. Moreover, it is made to be transmitted by the quantity of the medal thrown in from input port 9 through the quantity detector 23 at CPU18 so that clearly [ in this drawing ]. Here, an output unit including starting LGT 7, guidance LGT 8, drops 12 and 13, etc. is connected to CPU18 through a control section 24. Moreover, the hopper 26 in which many medals are stored, and the liquid crystal panel 33 mentioned later are also respectively connected to CPU18 through the control sections 25 and 27.

[0013] Next, drawing 3 shows the example of a configuration of a display. A display 3 carries out opening of the part of the front face of a machine frame 1 which faces

the peripheral surface of each drum 2, considers as an aperture 31, and is constituted by fixing a liquid crystal panel 33 through a bezel 32 inside this aperture 31 so that clearly [ in this drawing ]. The liquid crystal panel 33 constitutes the discernment means which can distinguish easily the pattern in which the winning-a-prize pattern was formed, as coloring control of the pattern of each drum 2 at the time of a halt and the nine fields which counter is carried out by the driver slack control section 27 according to an individual.

[0014] Drawing 4 is the example which painted to the opposed face with other patterns, and was made translucent, leaving an opposed face with the pattern in which the winning-a-prize pattern was formed, transparently and colorlessly. The stellate pattern which a winning-a-prize pattern is formed in drawing 4 of three patterns shown with stellate, and forms that winning-a-prize pattern at this time, and the field which counters are left behind while it has been transparent and colorless, it is painted to the field where other patterns unrelated to a winning-a-prize pattern counter by the translucent condition (slash section of drawing), and it is made indistinct [ this pattern ]. Since it becomes clear while only the pattern in which the pattern which forms a winning-a-prize pattern by this, and the other pattern are divided into light and darkness, and form a winning-a-prize pattern has been in a visible condition, a game person can distinguish a winning-a-prize condition in an instant.

[0015] Here, if an operation of the slot machine constituted as mentioned above is explained, in performing a game, a game person will throw the medal of 1-3 sheets into input port 9 first. Then, while winning-a-prize Rhine confirmed is decided, a game person can check the number of injections of a medal with lighting of guidance LGT 8. And after checking this, each drums 2 rotate all at once by operating the slot lever 5. Then, timing is measured, each stop button 6 is stopped to push, and the corresponding drum 2 is stopped in order. If the pattern which all the drums 2 stopped and was shown in the display 3 in this way forms a predetermined winning-a-prize pattern, it will be detected by the position transducer 22 which this shows to drawing 2 , and the detecting signal will be outputted to the control section 27 of a liquid crystal panel 33 through CPU18. Thereby, a liquid crystal panel 33 drives only fixed time amount, it leaves the pattern in which the winning-a-prize pattern was formed, and the field which counters, and it is palely painted to other patterns and the field which counters in red etc., and it is supposed that it is translucent. And when fixed time amount passes, a liquid crystal panel 33 will be made into a non-operative condition, and all corresponding patterns can be vividly checked through a display 3 by returning all fields transparently and colorlessly.

[0016] In addition, when the expenditure signal of a medal is outputted also to a hopper 26 through a control section 25 at the time of winning a prize and a prize is especially won in a predetermined pattern, the program of ROM19 carries out a step to a specific routine as everyone knows, and the so-called bonus game is started. On the other hand, if it becomes clear that the winning-a-prize pattern is not

formed on which winning-a-prize Rhine by the position transducer 22, the signal will be outputted to the control section 27 of a liquid crystal panel 33 through CPU18, and all the fields of the liquid crystal panel 33 which counters each pattern by this will tell it having been painted only to fixed time amount by the translucent condition, and having not won a prize of a game person.

[0017] As mentioned above, although a suitable example of this invention was explained, this invention can also change the pattern corresponding to this into the entire invisible condition instead of an indistinct display by making deep coloring of a pattern unrelated not only to for example, the above-mentioned example but a winning-a-prize pattern, and the field which counters, and making this field opaque. On the contrary, while painting to an opposite field with this pattern at a translucent condition, with fluoroscopy of the pattern in which the winning-a-prize pattern was formed enabled, while it has been transparent and colorless, it can leave an opposite field with other patterns. Moreover, while painting in the translucent condition, the field on a pattern unrelated to a winning-a-prize pattern is made unique [ on the pattern related to a winning-a-prize pattern / the field and unique ], and you may make it paint to the field on the pattern in which the winning-a-prize pattern was formed, translucent or opaquely.

[0018] Furthermore, as a method of controlling a discernment means slack liquid crystal panel, whenever 1 time of a game is completed (after a halt of all drums), it paints to all the fields of a liquid crystal panel 33 translucent or opaquely. When the field on winning-a-prize Rhine which corresponds in response to the detecting signal at the time of a medal injection is made into transparency, all the drums 2 stop and a winning-a-prize pattern is formed in a predetermined pattern It leaves the field which counters this and other fields are previously made translucent or opaque, and subsequently, it may be made to make a winning-a-prize pattern space translucent or opaque (after fixed time amount progress until a medal finishes paying out).

[0019] A discernment means is not constituted from a liquid crystal panel of one sheet, but you may make it control these according to an individual on the other hand using the liquid crystal panel of the number corresponding to the pattern which appears in a display, respectively. Moreover, a discernment means slack liquid crystal panel is made to face on the peripheral surface of each drum, and it does not equip, but you may make it pile up the liquid crystal panel as a discernment means on the display as a display which consists each drum of a liquid crystal display. Furthermore, you may make it form the shield in which switching operation is possible according to an individual on the screen of each pattern in the display with which a pattern aligns in all directions and is indicated to be, respectively, not using a liquid crystal panel as a discernment means.

[0020] Here, a winning-a-prize pattern may not restrict to a pattern of the same kind arranging on a straight line, and may set up the case where the pattern shown in a heart form like drawing 5 is located in a line in the shape of a cross joint, as a winning-a-prize pattern. Even if it makes it especially a winning-a-prize pattern like

drawing 5 by this invention, it is possible to distinguish this in an instant.

[0021]

[Effect of the Invention] By the above explanation, according to the slot machine concerning this invention, so that clearly When the pattern which appeared on the display forms a predetermined winning-a-prize pattern From having the discernment means which made translucent or opaque the field where the opposite field is made into transparency, and an unrelated pattern counters At the time of winning a prize, a game person can distinguish whether which winning-a-prize pattern of a number of inside was formed, and in what kind of location of a display the winning-a-prize pattern was formed in an instant. Thereby, it can complicate a winning-a-prize pattern and the enjoyment of a game not only increases, but can attain diversification of a game.

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#### DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] The transverse-plane schematic diagram having shown the slot machine concerning this invention

[Drawing 2] The block diagram having shown the control circuit of this slot machine

[Drawing 3] The fragmentary sectional view having shown the example of a configuration of a display roughly

[Drawing 4] The transverse-plane schematic diagram of a display having shown the condition that the pattern in which winning-a-prize Pan was formed, and the other pattern were classified

[Drawing 5] The transverse-plane schematic diagram of a display having shown the modification of a winning-a-prize pattern

[Description of Notations]

1 Machine Frame

2 Drum

- 3 Display
  - 4 Control Unit
  - 5 Slot Lever
  - 6 Stop Button
  - 31 Aperture
  - 32 Bezel
  - 33 Liquid Crystal Panel
- 

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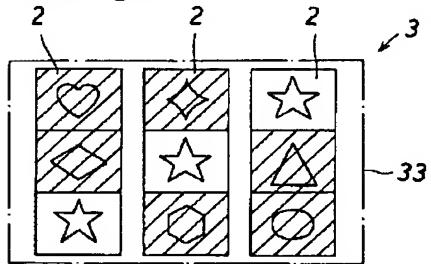
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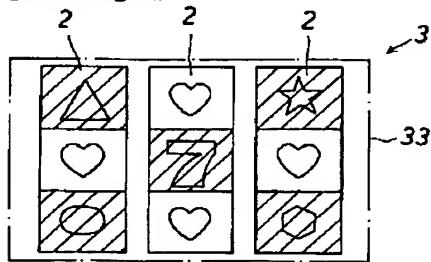
DRAWINGS

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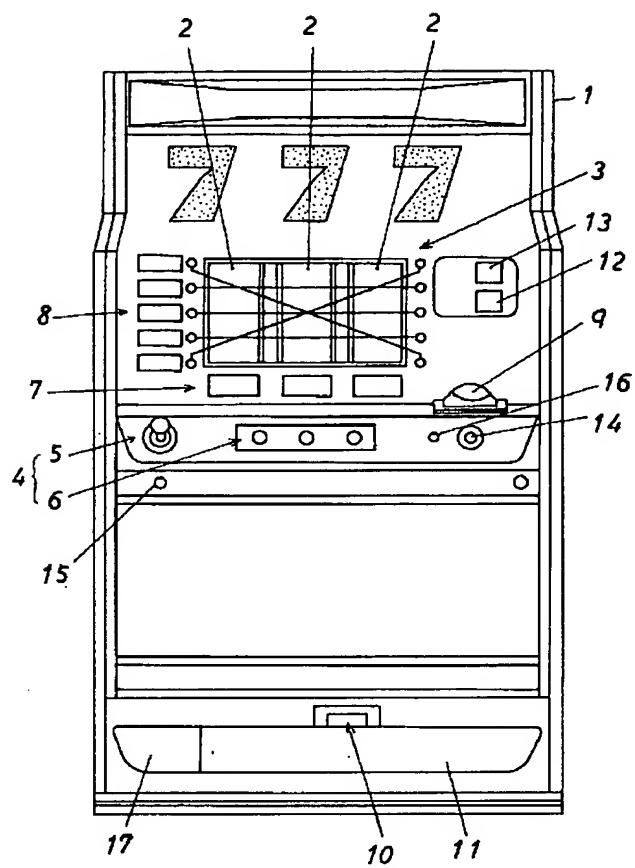
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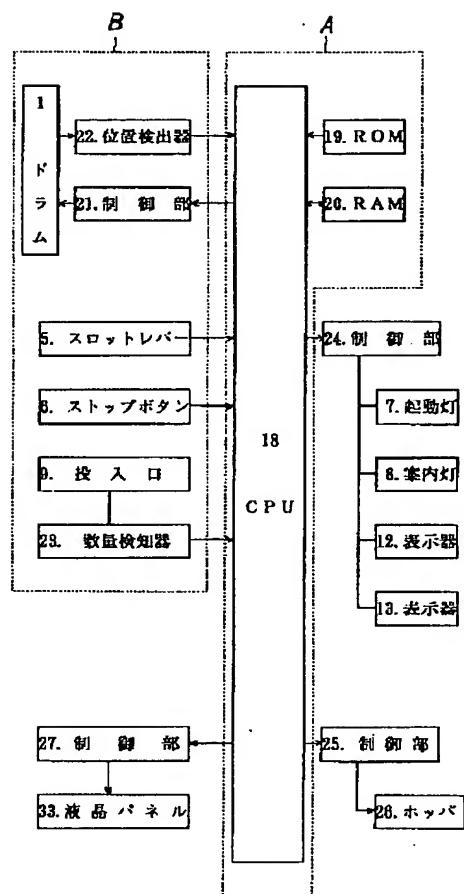
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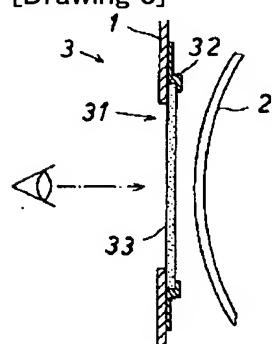
[Drawing 1]



[Drawing 2]



[Drawing 3]



[Translation done.]

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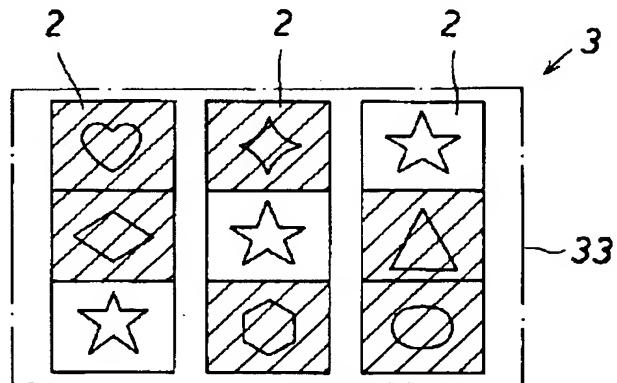
弁理士 羽鳥 亘

(54) 【発明の名称】スロットマシン

(57) 【要約】

【目的】 パチンコ遊技場などに設置されるスロットマシンにおいて、入賞時に該当する図柄を遊技者が容易に判別できるようにしてゲームの面白味を大幅に向上させる。

【構成】 複数の図柄が縦横に整列して示されるスロットマシンの表示部において、この表示部3に液晶パネル33を装置し、各図柄をその液晶パネル33を通して透視できるようにする。そして、入賞時には入賞パターンを形成した図柄と対向する領域を透明のまま残し、他の図柄が対向する領域を彩色して半透明又は不透明にする。これにより、入賞パターンと無関係な図柄を不鮮明又は不可視状態にして、入賞パターンに関係する図柄だけを明示する。



## 【特許請求の範囲】

【請求項1】 複数の図柄が縦横に整列して示される表示部と、その各図柄を変化させるための操作部とを有し、前記表示部に示された図柄が所定の入賞パターンを形成したときに遊技者に対して規定の権利を供与するようにしたスロットマシンにおいて、前記表示部に、入賞パターンを形成した図柄と対向する領域を透明のまま残して、他の図柄と対向する領域が一時的に半透明又は不透明とされる識別手段を備えたことを特徴とするスロットマシン。

【請求項2】 複数の図柄が縦横に整列して示される表示部と、その各図柄を変化させるための操作部とを有し、前記表示部に示された図柄が所定の入賞パターンを形成したときに遊技者に対して規定の権利を供与するようにしたスロットマシンにおいて、前記表示部に、入賞パターンを形成した図柄を可視状態にしたまま該図柄と対向する領域を彩色して、他の図柄が対向する領域と区別する識別手段を備えたことを特徴とするスロットマシン。

【請求項3】 識別手段が液晶パネルから成る請求項1、又は2に記載したスロットマシン。

## 【発明の詳細な説明】

## 【0001】

【発明の属する技術分野】 本発明は、表示部に示される図柄の羅列から入賞か否かを決定するスロットマシンに関する。

## 【0002】

【従来の技術】 従来、図柄を合わせるゲーム機として、スロットマシンが良く知られる。一般に、その種のスロットマシンは、周面に幾種類かの図柄を等間隔に施したリング状のドラムを3つ並列にして機枠に内蔵し、各ドラムの図柄のうちの数個を表示部たる透視窓を通して外部から視認できるようにしてある。その表示部は、例えば各ドラムに対応して機枠の前面を部分的に開口し、その開口部をガラス板などの透明材料により閉鎖して成るものであり、ここには通例として各ドラム毎に3つずつ、合計9つの図柄が縦横に整列して示される。ここで、スロットマシンは所定のメダルを用いてゲームを実行するものであり、機枠にはそのためのメダルを投入する投入口、メダルの投入後に表示部に示される図柄を変化させるための操作部、この操作部の操作で更新された図柄の羅列が所定の入賞パターンを形成したときに所定数のメダルを返却するための返却口、及び返却用のメダルを蓄えるホッパなどが設けられる。なお、操作部は各ドラムを一齊に回転させるためのスロットレバーと、回転中のドラムを個別に停止させることのできるストップボタンとから構成されるが、ストップボタンを備えずに各ドラムを自動停止させる型式のものもある。

【0003】 そして、以上のように構成されるスロットマシンによれば、投入口へのメダルの投入後、操作部を

操作してゲームを実行し、全てのドラムが停止したときに表示部に示される図柄の羅列が所定の入賞パターンを形成すると、遊技者は利権を獲得することができる。例えば、先頭のドラムにおける所定の図柄が表示部に示されたときメダルが2枚返却され、又各ドラムにおける同種の図柄が一直線上に配列したときには同図柄の種別によって6～15枚のメダルが返却され、特に同種の図柄として例えば「7」が一直線上に配列したときなどには、所定数のメダルの返却と共に以降のゲームで入賞パターンを形成する確率が高められるという権利を得ることになる。

【0004】 なお、一回当たりのメダルの投入数は一般に3枚を上限として、1枚投入時には中段の横一列が、2枚投入時には各段何れかの横一列が、又3枚投入時には斜め方向を加えた列がそれぞれ入賞確定ラインとされ、そのライン上で入賞パターンが形成されたときには上述の如く遊技者に対する権利の供与と共に、表示部の付近に設けたランプを点灯させるなどして遊技者へ入賞を知らせられるようにしてある。

## 【0005】

【発明が解決しようとする課題】 しかしながら、表示部の付近に入賞を知らせるランプを設けただけのものは、従来のように入賞ラインが直線形など比較的単純な場合ではまだしも、ゲームの多様化を図るために入賞ラインを複雑にした場合などにはどのラインで入賞したかを表現することが難しく、遊技者にしてもその判別が付きにくくゲームの面白味を欠くことになる。

【0006】 本発明は以上のような事情に鑑みて成されたものであり、その目的とする処は入賞時に該当する図柄を遊技者が容易に判別できるようにしてゲームの面白味を大幅に向上させることにある。

## 【0007】

【課題を解決するための手段】 本発明は上記目的を達成するため、複数の図柄が縦横に整列して示される表示部と、その各図柄を変化させるための操作部とを有し、前記表示部に示された図柄が所定の入賞パターンを形成したときに遊技者に対して規定の権利を供与するようにしたスロットマシンにおいて、前記表示部に、入賞パターンを形成した図柄と対向する領域を透明のまま残して、他の図柄と対向する領域が一時的に半透明又は不透明とされる識別手段を備えたことを特徴とするスロットマシンを提供するものである。

【0008】 又、本発明はその他の態様として、複数の図柄が縦横に整列して示される表示部と、その各図柄を変化させるための操作部とを有し、前記表示部に示された図柄が所定の入賞パターンを形成したときに遊技者に対して規定の権利を供与するようにしたスロットマシンにおいて、前記表示部に、入賞パターンを形成した図柄を可視状態にしたまま該図柄と対向する領域を彩色して、他の図柄が対向する領域と区別する識別手段を備え

たことを特徴とするスロットマシンを提供する。

【0009】ここで、識別手段として、各図柄の表示位置上に個別に開閉可能とされる遮蔽板を設けることができるが、好ましくは識別手段を液晶パネルで構成することが望ましい。

#### 【0010】

【発明の実施の形態】以下、本発明の適用例を図面に基づいて詳細に説明する。先ず、図1はスロットマシンの一例を示した正面図である。図1において、1はスロットマシンの外装を成す機枠、2は機枠の内部に3つ並列状にして設けた回転可能なドラムであり、その各ドラム2の周面にはそれぞれ複数種類の図柄が周方向に等間隔で施されている。3は各ドラムの図柄を透視可能な表示部であり、この表示部3には各ドラム毎に3つずつ、合計9つの図柄が縦横に整列して示される。4は表示部に表れた図柄を変化させるための操作部であり、この操作部4は各ドラム2を一斉に回転させるためのスロットレバー5と、各ドラム2を個別に停止させるためのストップボタン6などで構成される。7は各ドラムに対応して表示部の下に設けた起動灯、8は有効とされる入賞ラインを明示するための案内灯、9はゲームを実行するに必要なメダルの投入口であり、このうち起動灯7はドラム2の回転中に点灯し、案内灯8はメダルの投入数に応じて順に点灯すると共に、入賞時には該当するライン上のもののみ点滅する。又、10は入賞時に所定数のメダルを払い出すための返却口、11は払い出されたメダルを受ける受皿、12はメダルの払出数量を表示する表示器である。ここで、ゲームに用いるメダルは投入口からその都度投入することに限らず、内部メモリーにデータとして例えば50枚分まで貯留することができる。13はその貯留数量を示す表示器、14は該メダルを使用する場合に利用する投入ボタン、15は該メダルの現物を取り出すための清算ボタンである。そのほか、16は投入口に投入したメダルが詰まったときに利用する返却ボタン、17は灰皿を示している。

【0011】次に、図2は本願スロットマシンにおける制御回路の構成例を示す。図2において、制御ブロックAは中央処理装置としてのCPU18をはじめ、ROM19およびRAM20を含み、このうちROM19にはゲームの実行プログラムが書き込んでおり、RAM20には貯留メダル数量などゲームに必要とされるデータがその都度書き込まれる。

【0012】一方、制御ブロックBは制御対象としてのドラム2、操作部4としてのスロットレバー5及びストップボタン6、並びに投入口9などを含み、このうちドラム2はその駆動用モータの制御部21と位置検出器22とを介してCPU18とリンクされる。又、この図で明らかのように、投入口9より投入されたメダルの数量は数量検知器23を通じてCPU18に伝送されるようにしてある。ここで、CPU18には起動灯7、案内灯

8、及び表示器12、13などを含めた出力装置が制御部24を介して接続される。又、多数のメダルが蓄えられるホッパ26や後述する液晶パネル33も各々その制御部25、27を介してCPU18に接続される。

【0013】次に、図3は表示部の構成例を示す。この図で明らかなように、表示部3は例えば各ドラム2の周面に臨む機枠1の前面の部位を開口して窓31とし、この窓31の内側にベゼル32を介して液晶パネル33を固定することにより構成される。その液晶パネル33は、停止時における各ドラム2の図柄と対向する9つの領域がドライバたる制御部27により個別に彩色制御されないようにして、入賞パターンを形成した図柄を容易に判別し得る識別手段を構成する。

【0014】図4は、入賞パターンを形成した図柄との対向面を無色透明に残しつつ、他の図柄との対向面を彩色して半透明とした例である。図4において、入賞パターンは例えば星形で示される3つの図柄により形成され、この時その入賞パターンを形成する星形の図柄と対向する領域は無色透明のまま残され、入賞パターンと無関係な他の図柄の対向する領域は半透明状態（図の斜線部）に彩色されて該図柄が不鮮明とされる。これにより入賞パターンを形成する図柄とそれ以外の図柄が明暗に分かれ、入賞パターンを形成する図柄だけが可視状態のまま鮮明になるので、遊技者は入賞状態を瞬時に判別することができる。

【0015】ここで、以上のように構成されるスロットマシンの作用を説明すれば、遊技者はゲームを実行するにあたり、先ず投入口9へ1～3枚のメダルを投入する。すると、有効とされる入賞ラインが確定されると同時に、遊技者は案内灯8の点灯をもってメダルの投入数を確認することができる。そして、これを確認した後、スロットレバー5を操作することにより各ドラム2が一斉に回転する。そこで、タイミングを計って各ストップボタン6を押し、対応するドラム2を順に停止させるのである。斯くて、全てのドラム2が停止して表示部3に示された図柄が所定の入賞パターンを形成すると、これが図2に示す位置検出器22により検出され、その検出信号がCPU18を通じて液晶パネル33の制御部27に出力される。これにより液晶パネル33が一定時間だけ駆動され、入賞パターンを形成した図柄と対向する領域を残し、その他の図柄と対向する領域が赤色などで淡く彩色されて半透明とされる。そして、一定時間が経過すると、液晶パネル33が不作動状態とされ、全ての領域が無色透明に戻されることにより、対応する全ての図柄を表示部3を通して鮮明に確認できることになる。

【0016】なお、入賞時には制御部25を通じてホッパ26にもメダルの払出信号が outputされるのであり、特に所定の図柄で入賞したときにはROM19のプログラムが周知のように特定のルーチンにステップして所謂ボーナスゲームが開始される。一方、位置検出器22によ

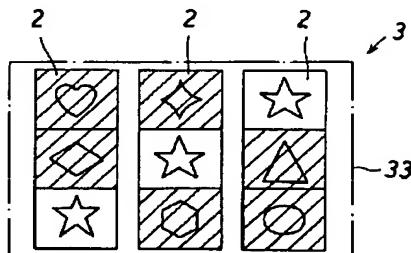
り何れの入賞ライン上でも入賞パターンが形成されていないことが判明すると、液晶パネル33の制御部27にはCPU18を通じてその信号が outputされ、これにより各図柄に対向する液晶パネル33の全領域が一定時間だけ半透明状態に彩色されて遊技者に入賞しなかったことを知らせる。

【0017】以上、本発明の好適な一例を説明したが、本発明は上記例に限らず、例えば入賞パターンとは無関係な図柄と対向する領域の彩色を濃くして、該領域を不透明にすることにより、これに対応する図柄を不鮮明な表示でなく全くの不可視状態にすることもできる。逆に、入賞パターンを形成した図柄を透視可能にしたまま該図柄との対向領域を半透明状態に彩色する一方、他の図柄との対向領域を無色透明のまま残すようにすることもできる。又、入賞パターンを形成した図柄上の領域を半透明状態に彩色する一方、入賞パターンとは無関係な図柄上の領域を入賞パターンに関係する図柄上の領域と異色にして半透明又は不透明に彩色するようにしてもよい。

【0018】更に、識別手段たる液晶パネルの制御法として、一回のゲームが終了するたび（全ドラムの停止後）に液晶パネル33の全領域を半透明又は不透明に彩色し、メダル投入時の検出信号を受けて対応する入賞ライン上の領域を透明とし、全ドラム2が停止して所定の図柄で入賞パターンが形成されたときには、これに対応する領域を残して先に他の領域を半透明又は不透明にし、次いで一定時間経過後（例えばメダルが払い出し終えるまで）、入賞パターン領域を半透明又は不透明にするようにしてもよい。

【0019】一方、識別手段を一枚の液晶パネルで構成するのでなく、表示部に表れる図柄に対応した数の液晶パネルを用い、これらをそれぞれ個別に制御するようにしてもよい。又、各ドラムの周面上に識別手段たる液晶パネルを臨ませて装置するのではなく、各ドラムを液晶表示装置から成る表示部として、その表示部上に識別手段としての液晶パネルを重ね合わせるようにしてもよい。更に、識別手段として液晶パネルを用いず、図柄が縦横に整列して示される表示部において、各図柄の表示面上にそれぞれ個別に開閉操作が可能な遮蔽板を設けるよう

【図4】



にしてもよい。

【0020】ここで、入賞パターンは、同種の図柄が一直線上に配列することに限るものでなく、例えば図5のようにハート形で示される図柄が十字状に並んだ場合を入賞パターンとして設定してもよい。特に、本発明では図5のような入賞パターンにしても、これを瞬時に判別することが可能である。

【0021】

【発明の効果】以上の説明で明らかなように、本発明に10係るスロットマシンによれば、表示部上にあらわれた図柄が所定の入賞パターンを形成したときに、その対向領域を透明にして無関係な図柄が対向する領域を半透明又は不透明とするなどした識別手段を備えていることから、入賞時には数あるうちの何れの入賞パターンが形成されたか、又その入賞パターンが表示部の如何なる位置に形成されたかを遊技者が瞬時に判別できる。これにより、ゲームの面白味が増すばかりでなく、入賞パターンを複雑にしてゲームの多様化を図ることもできる。

【図面の簡単な説明】

20【図1】本発明に係るスロットマシンを示した正面概略図

【図2】同スロットマシンの制御回路を示したブロック図

【図3】表示部の構成例を概略的に示した部分断面図

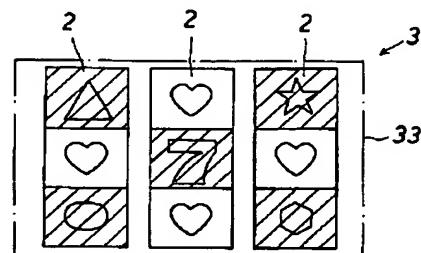
【図4】入賞パターンを形成した図柄とそれ以外の図柄とが区分された状態を示した表示部の正面概略図

【図5】入賞パターンの変形例を示した表示部の正面概略図

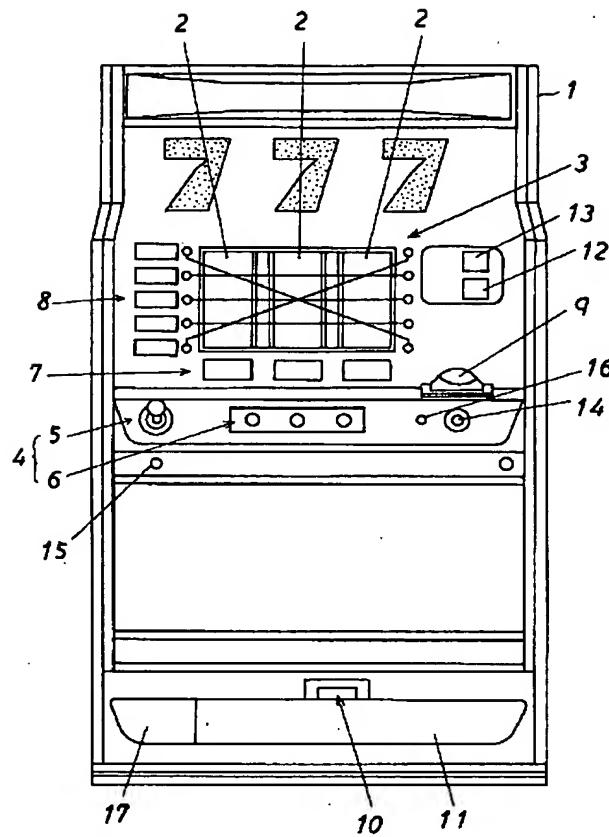
【符号の説明】

- |    |           |
|----|-----------|
| 30 | 1 機枠      |
|    | 2 ドラム     |
|    | 3 表示部     |
|    | 4 操作部     |
|    | 5 スロットレバー |
|    | 6 ストップボタン |
|    | 3 1 窓     |
|    | 3 2 ベゼル   |
|    | 3 3 液晶パネル |

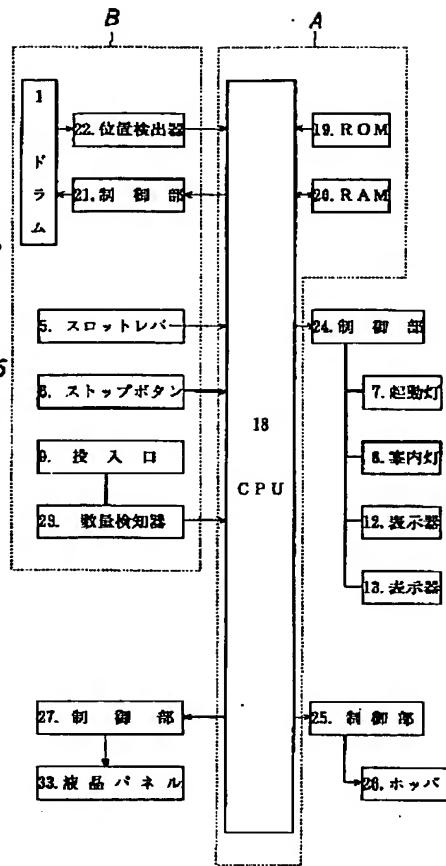
【図5】



【図1】



【図2】



【図3】

